

REMARKS

Claim Rejections – 35 U.S.C. § 102/103

The Examiner has rejected claims 8-12 under 35 U.S.C. § 102(3) for being clearly anticipated by Gealy et al. (US Patent No. 6,082,375) as previously applied. The Examiner has rejected claim 13 under 35 U.S.C. § 103(a) for being unpatentable over Gealy et al. '375, as applied to claim 8 above, and further in view of Toshio (JP 04092423) as previously applied. The Examiner has rejected claims 1-7 under 35 U.S.C. § 103(a) as being unpatentable over G.B. Alers et al. "*Nitrogen Plasma Annealing for Low Temperature Ta₂O₅ Films*". The Examiner has rejected claims 8-13 under 35 U.S.C. § 103(a) as being unpatentable over Alers et al. or T. Yasuda et al. "*Low-Temperature Preparation of SiO₂/Si (100) Interfaces Using a Two-step Remote Plasma-Assisted Oxidation-deposition Process*". The Examiner has rejected claims 14-19 and 21-23 under 35 U.S.C. § 103(a) as being unpatentable over Alers et al. The Examiner has rejected claims 13 and 20 under 35 U.S.C. § 103(a) as being unpatentable over Alers et al., as applied to claims 8 and 14 above, and further in view of Toshio (JP 04-092423). The Examiner has rejected claims 24, 28 and 31 under 35 U.S.C. § 103(a) as being unpatentable over Alers et al. The Examiner has rejected claims 25-27 and 29 under 35 U.S.C. § 103(a) as being unpatentable over Alers et al. as applied to claim 24 above, and further in view of Hasegawa (US Patent 5, 677,015).

Alers et al. and Gealy et al.

Submitted herewith is a Declaration under 37 CFR § 1.131 by inventor Pravin K. Narwankar indicating invention of the claims of the above referenced application prior to the March 16, 1998 publication date of Alers et al. as well as before the May 21, 1998 filing date of Gealy et al. As such, Applicant respectfully requests the removal of the 35 U.S.C. § 102 and 103 rejections based upon Alers et al. and/or Gealy et al.

Claims 8-9 and 11-12

It is Applicant's understanding that Yasuda et al. fails to teach or render obvious Applicant's invention as claimed in claims 8-9 and 11-12. In claims 8-9 and 11-12, Applicant claims a method of forming a dielectric layer which includes *"depositing a metal oxide dielectric layer onto a substrate by chemical vapor deposition"* and while depositing said metal oxide dielectric layer *"providing active atomic species"* into the deposition chamber. It is Applicant's understanding that Yasuda et al. fails to teach depositing a metal oxide dielectric. Yasuda describes forming a silicon dioxide film. Accordingly, Yasuda fails to teach or render obvious Applicant's invention as claimed in claims 8-9 and 11-12. Applicant, therefore, respectfully requests the removal of the 35 U.S.C. § 103 rejections of claims 8-9 and 11-12 and seeks an early allowance of these claims.

If there are any additional charges, please charge Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS

8. (Amended) A method of forming a dielectric layer comprising:
generating a plasma comprising ionized atoms in a first chamber;
flowing said ionized atoms through a conduit coupling said first chamber to a second chamber, wherein said ionized atoms become electrically neutral active atomic species before reaching said second chamber; and
depositing a metal oxide dielectric layer onto a substrate by chemical vapor deposition in said second chamber and while depositing said metal oxide dielectric layer, providing said active atomic species into said second chamber.